

What is claimed is:

1. A digital video data outputting apparatus in a display appliance, comprising:
data converting units for converting various types of analog video signals into digital
5 video data respectively;
an output signal selector for receiving outputs of the data converting units and selecting
any one of the received outputs; and
an encoding unit for encoding the output of the output signal selector.
- 10 2. The digital video data outputting apparatus as claimed in claim 1, wherein any one of the
data converting units is a video decoder for decoding a TV signal.
3. The digital video data outputting apparatus as claimed in claim 1, wherein any one of the
data converting units includes a video decoder for decoding a TV signal, and a color coordinate
15 transforming unit for transforming an output of the video decoder into digital RGB data to apply
the data to the output signal selector.
4. The digital video data outputting apparatus as claimed in claim 1, wherein any one of the
data converting units is a component processor for receiving and processing a DVD signal.
- 20 5. The digital video data outputting apparatus as claimed in claim 1, wherein any one of the
data converting units includes a component processor for receiving and processing a DVD signal,
and a color coordinate transforming unit for transforming an output of the video decoder into
digital RGB data to apply the transformed data to the output signal selector.

6. The digital video data outputting apparatus as claimed in claim 1, wherein any one of the data converting units is an A/D converter for receiving and decoding an analog RGB signal into digital RGB data.

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7. The digital video data outputting apparatus as claimed in claim 1, further comprising a digital visual interface (DVI) decoder for receiving and decoding DVI video data to apply the decoded data to the output signal selector.

10 8. The digital video data outputting apparatus as claimed in claim 1, further comprising a selecting unit for selecting any one of the outputs of the data converting units to display the selected output, and applying the selected output to the output signal selector.

9. The digital video data outputting apparatus as claimed in claim 7, further comprising a
15 selecting unit for selecting any one of the outputs of the data converting units and an output of the DVI decoder to display the selected output, and applying the selected output to the output signal selector.

10. The digital video data outputting apparatus as claimed in claim 9, wherein a plurality of
20 selecting units are provided according to characteristics of outputs of the data converting units and an output of the DVI decoder.

11. The digital video data outputting apparatus as claimed in claim 8 or 9, further comprising a scaler connected between the selecting unit and output signal selector for scaling an output of the selecting unit to apply the scaled output to the output signal selector.

5 12. A digital video data outputting apparatus in a display appliance, comprising:

first data converting units for converting some of various kinds of analog video signals into digital video data;

a signal detector for detecting input states of video signals inputted to the first data converting units;

10 a switching unit for receiving video data outputted from the first data converting units and selecting any one of the video data according to the detected result of the signal detector;

second data converting units for converting the remainder of the various kinds of analog video signals into digital video data;

15 a plurality of multiplexers for selecting some of the video data outputted from the switching unit and the second data converting units;

a scaler for scaling the digital video data outputted from the multiplexer;

an output signal selector for selecting any one of digital video data outputted from the scaler, the digital video data outputted from the switching unit, and the digital video data outputted from the second data converting units;

20 a digital visual interface (DVI) encoder for DVI-encoding the digital video data outputted from the output signal selector; and

a control unit for controlling the output signal selector.

13. The digital video data outputting apparatus as claimed in claim 12, further comprising a color coordinate transforming unit, connected between some of the second data converting units and the output signal selector, for color coordinate transforming an output of the second data converting units.

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14. A method for outputting digital video data in a display appliance, comprising the steps of:

a) converting video signals inputted to the display appliance into digital video data of a predetermined format;

10 b) selecting any one of the digital video data and digital visual interface (DVI)-encoding the selected data; and

c) outputting the DVI-encoded digital video data.

15. The method for outputting digital video data as claimed in claim 14, further comprising the steps:

selecting one or more of the digital video data converted in the format to display the data;

and

processing the selected digital video data to be displayed, wherein the step b selects any one of the processed video data and the digital video data converted in the given format.

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16. The method for outputting digital video data as claimed in claim 15, wherein the step of processing the selected digital video data to be displayed is performed by a scaling process.

17. The method for outputting digital video data as claimed in claim 15, wherein the step of selecting the digital video data to be displayed is performed by kinds of the digital video data several times.

18. The method for outputting digital video data as claimed in claim 14, wherein the video signal includes at least one of a TV signal, a DVD signal, an analog RGB signal, and a DVI video data.

19. The method for outputting digital video data as claimed in claim 18, wherein the TV signal is decoded and converted into the given format of digital video data, the DVD signal is component-processed and is converted into the given format of digital video data, the analog RGB signal is converted into the given format of digital video data, and the DVI video data is DVI decoded to be convert into the given format of digital video data.

20. The method for outputting digital video data as claimed in claim 18, further comprising the step of color-converting the given format of digital video data by converting the TV or the DVD signal, wherein the step b selects any one of the color converted digital video data and the digital video data converted in to the given format.